

**Progress Report  
to the Board of Executive Directors  
on the Implementation of Management's Action Plan  
in Response to the Inspection Panel Investigation Report on the  
West African Gas Pipeline (WAGP) Project**

**I. Summary**

1. **Introduction.** On April 25, 2008, the Inspection Panel submitted its Investigation Report No. 42644-GH on the West African Gas Pipeline (WAGP) Project to the Board of Executive Directors. On June 30, 2008, Management submitted its Report and a detailed Management Action Plan (MAP), developed in response to the Inspection Panel's Investigation Report (see Table 1, Para 24). The MAP acknowledged gaps in three key areas: (a) Social Impact Assessment and Mitigation Measures; (b) Environmental Assessment and Mitigation Measures; and (c) Project Supervision.

2. On August 5, 2008, the Executive Directors discussed the above reports and endorsed the MAP proposed by Management. The Board also asked that Management report on the progress in implementing this action plan in six months. The first Progress Report, covering the period August 2008 – January 2009 was submitted in February 2009. This second Progress Report covering the period up to August 2009 is being submitted to the Board in response to that decision.

3. Since the last Progress Report in February 2009, significant progress has been made on the physical works: (i) free-flow gas was delivered to Takoradi Power Company (TAPCO) during April 26 - May 16, 2009, **until the supply** from Nigeria was disrupted on account of vandalization of the pipeline (Escravos-Lagos Pipeline System [ELPS]) in Niger Delta; and (ii) mobilization of new contractors at all locations, and mechanical completion expected by December 2009 with pre-commissioning activities planned during first quarter 2010.

4. In terms of implementation of the MAP, key accomplishments include:

(a) **Social resettlement and compliance.** Actions **completed** under the MAP, include: (i) a first quarter report on findings from the socio-economic survey for Nigeria; (ii) community development projects (CDP) projects for Years 1 and 2 largely delivered to beneficiary communities and being audited; (iii) appointment of a focal person for vulnerable groups in Nigeria, and development of targeted programs for vulnerable groups; (iv) enhanced disclosure and consultation activities with affected communities; and (v) the grievance mechanism made operational and complaints resolved within agreed time periods. Planned activities include: (i) Year 3 CDP projects focusing on livelihood and income generating activities; (ii) completion of additional compensation for land, crops and trees for lands with 50% or more land take in Benin; and (iii) establishment of a socio-economic database for monitoring and evaluation of project outcomes in all four countries.

(b) Environmental and safety compliance. All actions under the MAP have been completed as follows: (i) collaboration with stakeholders on environmental management plan (EMP) and safety training has been achieved; (ii) emergency response plan and safety brochures have been prepared and widely disseminated; (iii) a new contract has been put in place for EMP monitoring, and the first progress report has been completed; (iv) two WAGP staff have been assigned as environmental and social compliance specialists for all construction activities; (v) the pipeline is marked on navigational charts and protected by a “no anchor” zone; and (vi) pipeline markers / buoys have been put up at Takoradi, Tema, Lome and Cotonou. While all actions under the MAP have been completed, the independent Environment and Social Advisory Panel (ESAP) had identified a number of actions which could further strengthen the environmental compliance of WAGP. WAPCo has taken due note of these actions and is undertaking appropriate measures to address these concerns (Table-1).

**Table 1: Actions identified by ESAP and Follow-up**

<b>ESAP Recommendation</b>	<b>Status at Last Mission</b>	<b>Planned Follow-up</b>
Implement shoreline monitoring program at Tema and Takoradi.	Draft of the first beach monitoring report was under revision by the consultant.	WAPCo will expedite completion of report and distribute to Ghana EPA, World Bank, and ESAP
Monitor shoreline erosion in Togo.	Togo Ministry of Environment and Forestry informed the mission of a planned beach stabilization project involving construction of groins. WAPCo has been working with government for better control of sand mining in Lomé.	WAPCo will continue to monitor erosion and planned erosion control activities
WAPCo should undertake a root cause analysis of the discharge of hydrotest water at Takoradi.	WAPCo has recruited Environmental Resources Managers Limited (ERML), a reputable environmental firm to help with environmental monitoring of project activities including hydrotest water.	WAPCo will continue to ensure adequate Environmental and Social due diligence in carrying out hydrotest water discharge. The most recent water discharge was properly monitored and carried out without incident.
Adequate emergency response plans and staff training have been completed. Additional attention to gas releases off site is needed.	All communities visited by the mission in the four countries confirmed that they had received emergency response training from WAPCo. VRA has provided additional training for its operating staff and the employees at facilities near the thermal plant.	WAPCo plans additional training at community level to ensure sufficiently wide dissemination of safety information.
Maintain vigilance in monitoring activities near the pipeline to minimize interference with its integrity.	Local surveillance committees continue to operate in Nigeria. Offshore pipeline protection arrangements are in place, and port authorities and navies are coming up to speed in enforcing them.	WAPCo will continue all activities noted, particularly the outreach program to Ghanaian fishing associations, on which it is collaborating with the Navy.

	WAPCo and enforcement authorities have conducted awareness training for fishermen's associations.	
Focus on a long term development relationship with Project affected people and their communities.	WAPCo is conscious of the importance of a long-term relationship with the Project affected people	WAPCo has launched a number of Community Development initiatives to foster a long-term relationship.
Improve adherence to change management procedure	WAPCo management is fully aware of the importance and indicated commitment to ensure better change management	WAPCO will ensure considerable overlap between outgoing and incoming staff to ensure seamless transition and no loss of institutional memory as per safeguards due diligence and compliance.

(c) Institutional issues and project supervision. Concerted efforts have been made to **strengthen institutional capacity, and intensify project supervision**, as follows: (i) the West African Pipeline Company (WAPCo) is taking steps for a smooth transition from the construction to operational phase; (ii) training on environmental and social safeguards has been provided to WAPCo staff and the contractors; and (iii) the task team has undertaken monthly field visits up to February 2009, a full supervision mission took place in July 2009, and a Bank-wide seminar and meeting with Bank staff and Inspection Panel members was organized in Washington DC in June 2009 to share WAGP experiences and lessons learned for Africa regional operations.

5. The way forward. Some implementation challenges remain both in implementation of the project and, more specifically, of the MAP, among them: (i) completing the remaining works especially the compressor station in Nigeria, and commissioning of the Reduction and Metering (R&M) station and connecting line at Cotonou (Benin) by end 2009; (ii) obtaining gas supply from Nigeria for compressed gas volume – at least 133 million cubic feet per day – from the first quarter 2010 (see Section IV); (iii) developing and finalizing a livelihood restoration strategy with an appropriate monitoring and evaluation (M&E) system, payment of additional compensation in Benin, and initiation of Year 3 CDPs on livelihood restoration; (iv) enforcing the no-anchor zone in Benin, Togo and Ghana; and (v) receiving TAPCO's (Ghana) financial obligation towards the escalated project cost. WAPCo and the Bank Task Team are working towards the resolution of these implementation challenges.

## II. Project Description and Status of Gas Delivery

6. **Project Description.** The Project is one of the Bank's major ventures into public-private partnership involving four countries (Nigeria, Benin, Togo, and Ghana), but with limited risk coverage. It combines a risk mitigation strategy through an IDA Partial Risk Guarantee (PRG) of US\$50 million, with respect to gas purchases of Ghana's Volta River Authority (VRA) and *Communite Electrique du Benin* (CEB); a Guarantee from the Multilateral Investment and Guarantee Agency (MIGA) of US\$75 million; and

commercial insurance to back the credit risk of WAPCo, VRA, and CEB. The Project was approved by the Board on November 23, 2004<sup>1</sup>. The IDA PRG insures a portion of the VRA obligations to WAPCo under the Takoradi Gas Sales Agreement (TGSA) in the event where a failure by VRA to pay the Nigerian gas purchaser, N-Gas Limited, results in N-Gas terminating the TGSA. However, the IDA PRG does not cover breach of other obligations undertaken by VRA or Ghana under the Project agreements. In terms of the regional energy scheme, which notably decreases input costs and diversifies fuel supply for the power sector, the Project is expected to expand investments in local industries and enterprises in the four participating countries. The use of a cheaper and more benign energy source is expected to provide cost savings to users, and develop the economy through competitiveness and regional trade.

7. The Project consists of: (i) a 678 kilometer long pipeline that transports gas from Nigeria to Benin, Togo, and Ghana; (ii) lateral spurs from the main pipeline that move gas to power generating units in Ghana, Benin, and Togo; (iii) conversion of existing power generating units to gas (financed by their owners); and, as needed, (iv) additional compression investments. These are developed to meet the expected market potential of about 450 million cubic feet per day (mmcf/d), with a pipeline diameter of 20 inches. The main trunk of the offshore pipeline is in the seabed, between 26 and 70 meters below the ocean surface, and at an approximate distance of 15 to 20 kilometers from the shore. Gas is transferred through lateral spurs, and the terminal of the pipeline is at the Takoradi Power Station in Ghana. The total area of land take was estimated at more than 200 hectares, with over 3,000 households within the right of way (ROW), 70 percent of which lies in Nigeria.

8. **Status of Gas Supply.** The line was packed with gas during December 2008 – March 2009. Free flow gas volume of 30 mmcf/d was delivered to TAPCO during April 26 – May 16, 2009, and Turbine 1 switched from liquid fuel to gas during this period. The gas was envisaged to be provided by Chevron Nigeria Ltd. (CNL) and Shell Petroleum Development Co. (SPDC) in a 50:50 ratio; however, most of the supply came from CNL during this period due to supply and processing problems with SPDC. The gas supply from Nigeria was interrupted from May 16, 2009 onwards on account of the vandalization of the ELPS in Niger Delta. The Federal Government of Nigeria (FGN) has taken a number of measures to address the security situation as follows: (a) declaring a general amnesty to the militant groups in Niger Delta and initiation of dialogue with groups ready for a peaceful resolution of issues; (b) announcing a socio-economic development program amounting to Naira 60 billion (approximately USD 390 million) in the first phase; (c) stationing additional security forces in areas affected most by militant actions; and (d) providing security to personnel operating and repairing the infrastructure facilities in the restive areas. One of the major militant groups in the Niger Delta recently announced a two-month ceasefire in response to FGN initiatives. However, the same group publicly stated that no repairs could be undertaken as a short-term condition for the cease-fire. At present, gas supply to Nigeria's own power plants and industrial customers is severely curtailed while supplies to WAGP are suspended. As the security situation

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<sup>1</sup> Its total estimated cost at the time was \$US 590 million.

improves, and given that the financial structure of the project incentivizes Chevron and Shell to supply gas through the pipeline for returns to their investment, the expectation is that the project would deliver its objectives of economic gas supply over the medium term.

### III. Management Action Plan Implementation

9. The MAP is divided into sections referring to social safeguards compliance; environment safeguards compliance; and supervision. This section describes the specific actions undertaken and the status of implementation, as shown in Table 2 below, followed by a more detailed description specific follow-up activities.

**Table 2: Implementation of Management Action Plan**

ACTION	STATUS
<b>Social Impact Assessment and Mitigation Measures</b>	
<p>1. WAPCo to undertake consultations and sensitization of communities on the method for livelihood restoration compensation; and community development programs (15 completed by June 2008; consultations with affected communities to be an ongoing process). The field-based social specialist has observed some of the consultations. Management will undertake monthly follow-up, starting in July 2008 until completion of the compensation process.</p>	<p>1. <b>Completed.</b> Consultation and sensitization of communities was completed prior to start of the payment process in September 2008; field-based Bank staff undertook monthly visits to the project site until February 2009.</p>
<p>2. WAPCo prepared a program on livelihood restoration, including the methodology for additional compensation for livelihood restoration for PAPs using four zones; verification of PAPs and intra- and inter-household access and claims completed in May 2008; payments to be distributed to PAPs by October 2008. Management will carefully monitor this program, including through monthly field visits and the supervision mission (in Dec 2008).</p>	<p>2. <b>Completed.</b> WAPCo conducted a satisfactory payment process in Nigeria for additional compensation, and only litigation cases remain; the payment process was observed by the Bank team as well as the Witness NGO; monthly field visits were undertaken to receive feedback from the PAPs.</p>
<p>3. An update of the socio-economic survey to be completed by December 2008; with a follow-up survey update in 2010 (at the end of RAP monitoring period to assess income and livelihood impacts). The Bank will review survey methodology and results, which will be validated by an independent consultant.</p>	<p>3. Socioeconomic survey has been <b>Completed</b> in Nigeria. The findings from the socio-economic survey were presented in a workshop organized by WAPCo, and a summary will be translated into local languages and presented to communities. The Bank has reviewed the survey methodology and results, and they have been validated by an independent consultant. Similar surveys are planned for Benin, Togo and Ghana to complete the socio-economic (baseline) database of project affected households. These are expected to be completed by March 2010.</p>

<p>4. WAPCo hired IITA Agricultural Economist who has submitted a report on adjusted crop and tree prices, which has been reviewed and found acceptable to the Bank.</p>	<p>4. <b>Completed.</b> This activity was completed prior to start of actual payment and the IITA provided inputs to the valuation of crops and trees (in September 2008).</p>
<p>5. WAPCo to undertake compensation of crops and trees (based on updated market rates), adjusted for inflation to 2008 prices, and applying 4 differentiated land use zones and the most current IITA/FAO agricultural prices in Nigeria, by October 2008. Management will review the prices before compensation payments are made.</p>	<p>5. <b>Completed.</b> The adjusted crop and tree compensation and land valuation was calculated based on IITA/FAO and market prices; the process of actual payments was completed in September 2008. Management reviewed the prices before the compensation payments were made.</p>
<p>6. WAPCo to intensify CDP implementation strategy, focusing on livelihood restoration; skills development; and activities targeted for vulnerable groups. (August 2008). The CDP will be further modified, based on the findings of the updated socio-economic surveys in 2008 and 2010. Management will carefully monitor the CDP implementation strategy, through ongoing field visits and the December 2008 supervision mission.</p>	<p>6. <b>Ongoing.</b> CDP projects for Year 1 and 2 are largely complete and are being audited; Year 3 projects will focus on livelihood and income generating activities.</p>
<p>7. WAPCo to document modifications to CDP activities to specifically address needs of vulnerable groups</p>	<p>7. <b>Ongoing.</b> The focal person for vulnerable groups was appointed in Nigeria and a coordinator for Benin, Togo, and Ghana is being recruited. WAPCo has identified 64 households using gender and age criteria as indicated in WAPCo's database. Specific programs to address the needs of vulnerable groups are being developed.</p>
<p>8. WAPCo to ensure full disclosure of livelihood restoration compensation (underlying reasons, methodology, calculations, payment process, grievance handling) during community sensitization meetings (Ongoing, fifteen community meetings held in May and June 2008). Management will monitor progress in disclosing relevant information on compensation.</p>	<p>8. <b>Completed.</b> Full disclosure of additional compensation was done prior to the start of additional payment in September 2008.</p>
<p>9. WAPCo to continue to discuss with communities the results of RAP Audit (conducted in 2007) and submit RAP monitoring and consultation updates as part of its monthly progress report (as provided in the Project's monitoring and evaluation plan) to the Bank.</p>	<p>9. <b>Ongoing.</b> An appropriate monitoring and evaluation (M&amp;E) system was set up by WAPCo using a common template. Data entry from the template is saved in a database and summarized in monthly reports. Feedback from the Community Relations Representatives (CRRs) are also recorded and monitored.</p>
<p>10. WAPCo to hire an independent monitor (witness NGO) by early July 2008 to document and witness the payment process for livelihood restoration additional compensation.</p>	<p>10. <b>Completed.</b> Witness NGO (Nigeria Network of NGOs or NNNGO) observed and documented the compensation process and found it satisfactory and transparent.</p>

<p>11. WAPCo to ensure that the grievance mechanism includes information on accessible procedures for third party settlement of disputes arising from compensation and other aspects of the RAP, and improved documentation of dispute resolution (nature of disputes, parties involved, duration/timing) (July 2008). The Bank field visit in August 2008 will assess the effectiveness of the grievance mechanism.</p>	<p>11. <b>Completed.</b> The grievance mechanism has been working, and complaints are being resolved within agreed time period. As of April 2009, WAPCo registered 21 complaints and 80% of these were resolved within a period of 1 to 4 months in Nigeria.</p>
<p>12. WAPCo to engage in participatory consultations with affected communities on the grievance mechanism and revise the procedures, as appropriate, based on feedback</p>	<p>12. <b>Ongoing.</b> The participatory consultations on the grievance mechanism are ongoing. The grievance mechanism is working (see item 11 above) and to date, there have been no complaints against its working.</p>
<p>13. WAPCo is ensuring that its social safeguards personnel are being adequately trained in RAP monitoring, as well as in the monitoring and evaluation of safeguards compliance and of the community development program . At the same time, WAPCo is increasing its social safeguards staff through the recruitment of 2 staff in Nigeria and one staff member in Ghana in June 2008. One staff each in Benin and Togo are also being trained to handle the social safeguards issues. Management will assess, on an ongoing basis, the safeguards capacity in WAPCo and other partners (e.g., local groups, witness NGO).</p>	<p>13. <b>Completed.</b> WAPCo has trained its social safeguards staff through the second phase of the MIGA training in June 2009. A post-training report was submitted by the trainer and is available through the Bank and WAPCo. Adequate social safeguards staff exists in all four countries (Community Relations Representatives).</p>
<p>14. WAPCo safeguards staff to participate in the IFC capacity building program organized by IFC</p>	<p>14. <b>Completed.</b> WAPCo sent two senior staff to participate in the IFC capacity building program in April 2008.</p>
<p>15. WAPCo to utilize an institution-building program/grant from MIGA by September 2008.</p>	<p>15. <b>Completed.</b> MIGA training was done in two phases. There was an analysis of the institutional arrangements for monitoring and evaluation in August 2008. This was followed by a training workshop for livelihood restoration in June 2009.</p>
<p><b>Environmental Assessment and Mitigation Measures</b></p>	
<p>16. Management to ensure that ESAP is retained up to July 2009, to encompass remaining construction period and initial operations.</p>	<p>16. <b>Completed.</b> ESAP visit carried out in August 2008. ESAP is being retained until the completion of the project.</p>
<p>17. WAPCo to translate the Executive Summary of the EMP for operations into Yoruba and disseminate it among the communities by August 2008. Management will monitor the dissemination of the EMPs during its monthly field visits.</p>	<p>17. <b>Completed.</b> Executive Summary of the EMP translated into Yoruba and disseminated to local communities in Nigeria, Benin, Togo, and Ghana in August 2008. Dissemination process monitored through CRRs.</p>
<p>18. Management to endeavor to obtain annual data from DPR and NNPC by December 2008, on the respective volumes of associated and non-associated gas to WAGP through ELPs.</p>	<p>18. <b>Completed.</b> Data on volumes of associated and non-associated gas has been obtained from DPR for 2008. Similar data would be obtained for 2009 once gas starts flowing to Ghana.</p>

<p>19. WAPCo to conduct ERP awareness meetings with stakeholders and communities near WAGP facilities, prior to first gas (To be completed in June 2008).</p>	<p>19. <b>Completed.</b> WAPCo conducted ERP awareness briefings for more than 170 community residents in Nigeria and Ghana. VRA safety and environment staff from the Takoradi plant participated in the community briefings in Ghana.</p>
<p>20. WAPCo to produce a safety brochure, translate it into local languages, and widely disseminate it (July 2008).</p>	<p>20. <b>Completed.</b> WAPCo has completed production of the safety brochure, translated it into Yoruba and distributed 500 copies in Nigeria.</p>
<p>21. Additional public awareness meetings to be held in the future, and printed information on relevant aspects of the ERPs to be distributed (Ongoing). Management will monitor the ERP awareness activities through regular field visits.</p>	<p>21. <b>Completed.</b> Follow-up meetings have been held to ensure community awareness of emergency procedures.</p>
<p><b>Project Supervision and Management</b> <b>Mission duration, frequency, and expertise (OP13.05)</b></p>	
<p>22. Management to ensure a minimum of two Bank supervision missions of 10-14 days' duration during the remaining construction period of the Project, with more frequent/continuous formal and informal supervision. In addition to technical, financial, and economic specialists, Bank supervision missions to include environmental and social safeguards specialists (by December 2008 for the first mission; by April 2009 for the second mission)</p>	<p>22. <b>Completed/Ongoing.</b> Supervision mission took place during July 13-25, 2009; monthly field visits continued until February 2009; regular updates on the project has been provided to AFR Management</p>
<p>23. Management input and coordination with the Country Office in monitoring the Project to be strengthened with periodic reviews of Project Implementation (ongoing). Management to allocate adequate budgetary resources for the supervision effort – about 3 times the normal supervision budget (FY08 and FY09)</p>	<p>23. <b>Completed.</b> A project supervision strategy was approved by Management in August 2008; monthly field visits to project site, starting in August 2008</p>
<p><b>Supervision of public private partnerships, actions on early warning signs – resources for supervision, handling of complex regional projects (OP13.05)</b></p>	
<p>24. Management to document, based on WAGP experience, the lessons learned on supervision of public private partnerships, and to bring this to the attention of project teams handling similar complex projects</p>	<p>24. <b>Completed/Ongoing.</b> A Bank-wide seminar and meeting with Bank staff and Inspection Panel members was organized in Washington DC to share WAGP experiences and lessons learned for Africa regional operations;</p>
<p>25. Management to undertake in the future a more comprehensive evaluation of the sector environmental and social issues for projects involving new borrowers/sponsors in a complex sector with many actors/participants.</p>	<p>25. <b>Completed/Ongoing.</b> Africa Region environment and social issues analyzed through country portfolio reviews, and recently, a special review of regional projects was started; there is also an ongoing review of regional projects in the oil and gas sector, using WAGP experience.</p>



<p>26. Management is developing "best practice" tool kits to assist task teams in the Africa Region to navigate process challenges and to better achieve high standards of implementation monitoring in complex regional programs (to be completed by the end of FY09).</p>	<p>26. <b>Completed/Ongoing.</b> Africa Region energy, environment, and social websites completed; the Region has started compiling documentation of best practice cases in energy sector and regional projects; good practice workshop on lessons learned in WAGP took place in June 2009; Africa Region safeguards training (mobile clinics) completed in FY08 and FY09.</p>
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### Social Safeguards

10. WAPCo has **completed**: additional payments in Nigeria; socio-economic survey and establishment of the baseline in Nigeria; livelihood enhancement and community development; consultation and stakeholder participation; programs for vulnerable groups; a functional grievance mechanism; and a monitoring and evaluation system.

11. Additional compensation. The first Progress Report described the process of additional compensation and livelihood restoration. The Witness NGO's evaluation rated the process as **satisfactory**. This is demonstrated by the completion indicators. First, WAPCo has **made payments** to 95% of project affected persons (PAPs) amounting to Naira 82.8 million out of Naira 87.0 million of the remaining amount of payments, and 81% of the number of PAPs (173 out of 215 households) under Phase II<sup>2</sup> compensation. Second, payments were **completed** for claimants who were absent during the initial payment in September-October 2008. As of June 2009, of the remaining 111 claimants, 43 were paid, representing 38.7% at a sum of Naira 23.8 million out of the Naira 45.4 million set aside for compensation, or 52.5%. Delays were due to legal and judicial procedures. Third, WAPCo has **largely completed** the claimants' verification process. Meanwhile, in Benin, the additional livelihood support to PAPs with 50% or more land take in 4 communities is expected to be completed by the end of 2009. Similar to the process adopted during the additional compensation in Nigeria, a Witness NGO will be appointed to observe the process.

12. Socio-economic survey. The socio-economic survey in Nigeria has been **completed** and included 192 respondents from 11 rural, 9 peri-urban, and 4 urban communities. The findings showed the post-compensation status of PAPs as improving in terms of a general increase in incomes and livelihood opportunities. Some communities raised concerns about longer-term employment, erosion and flooding issues, social problems among youth, ongoing issues on remaining compensation, and longer-term efforts to keep communities informed about safety issues (e.g. gas leaks). Based on the findings from the structured interviews and focus group meetings, the following are the major recommendations for the CDP: (i) emphasis on youth skills and employment, including entrepreneurial activities; (ii) capacity building for local leaders on governance and

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<sup>2</sup> Phase II is defined as additional compensation to PAPs that were not included in the October 2008 compensation exercise.

accountability; (iii) women's livelihood support; and (iv) expansion of markets and access roads. Follow-up surveys in Benin, Togo, and Ghana (Tema) will be started by the end of 2009 and will provide critical input for community development plans and activities.

13. Livelihood enhancement and community development. Currently, the CDPs have **completed** 24 community infrastructure facilities and augmented the existing community delivery of health, education and marketing services. However, while some of the facilities are operational (e.g. a health clinic in Nigeria; school blocks in Togo), others appear to have either broken down as a result of poor quality construction by local community contractors or because of a lack of maintenance by local government agencies who had committed to provide health and education staff and resources. These include, for example, the unused health care and small market building in Togo; underused primary school in Benin; and two water sub-projects in Nigeria. WAPCo is currently undertaking a technical, and operation and maintenance audit of these facilities and evaluating ways of improving these structures.

14. Drawing on the lessons learned from Years 1 and 2, WAPCo has begun strengthening its partnerships with local communities and government agencies for long-term operation and maintenance. Livelihood support has been minimal in Years 1 and 2, although a few programs to support women's activities (e.g. market stalls in Ghana) have been provided to local communities. Some promising livelihood opportunities that can be covered in the CDP, such as sand mining, are being done by women in Togo and Nigeria. In Togo, communities asked for support to expand vegetable farming and a lucrative and self-sustaining commercial use of sanitary and toilet facilities. Following advice from ESAP and previous World Bank missions, WAPCo will continue to strengthen efforts to develop and implement CDPs during Year 3 that focus on livelihood restoration.

15. Consultation and stakeholder participation. WAPCo has **completed** disclosure, consultations, and participatory programs through its Community Relations Representatives (CRRs). Feedback from these consultations is recorded in a database. Together with the survey results, feedback will be summarized and disseminated through village and focus group meetings. In Togo and Benin, the CRRs have organized community monitoring committees that provide timely comments on CDP and livelihood related programs.

16. Programs for Vulnerable groups. A vulnerable groups coordinator (or "point person") in Nigeria has **completed** targeted programs for vulnerable people who belong to the categories of youth, women, disabled, or seriously ill. WAPCo is in the process of recruiting a vulnerable groups coordinator for Benin, Togo, and Ghana. Programs for vulnerable people will be started under Phase III of the CDP. Examples of such programs are skills training for youth in all four countries; self-reliance reinforcement management proposed for Togo; women and youth agricultural sub-projects like vegetable farming near Gbesogbe primary school in Togo; and support for women's fish drying ovens in Takoradi, Ghana.

17. Grievance mechanism. The grievance resolution process is **operational**. PAPs are able to file their complaints either through their community leaders or the CRRs who

visit their villages on a weekly basis. WAPCo maintains a template for tracking grievances, indicating the date of filing; nature of complaint; persons involved; and date and manner of resolution. As of April 2009, for example, in Nigeria, 21 complaints were registered and 80% of these were resolved within a period of 1 to 4 months. Examples of grievances that remained unresolved for over 3 months covered difficult issues such as labor, wage, or contractual disputes with a former contractor and some undocumented land titling or land claims.

18. Monitoring and evaluation system. WAPCo uses a monitoring and evaluation (M&E) template for assessing the quality of community infrastructure as measured in terms of usage; degree to which the service meets local needs; and peoples' perception of the service. These are then compiled in a centralized database. These measures are supplemented by information gathered from the socio-economic surveys; feedback from weekly village meetings and consultations (documented in CRR progress updates); and audits (WAPCo hired a consultant to do the audit of community infrastructures).

19. Way forward. WAPCo is committed to a participatory community development approach. The following actions will be undertaken during the next 6 to 12 months. First, WAPCo will finalize all additional payments in Nigeria and Benin, including resolution of any compensation issues. Second, WAPCo will complete the audit of the community infrastructure sub-projects; initiate the repairs; and finalize operating and maintenance arrangements with service providers. Third, the CDPs will enhance skills training and WAPCo will appoint a vulnerable groups coordinator, especially in the areas of youth employment; women's livelihood; and support to disabled populations (e.g. scholarships to the Badagry skills acquisition center and other skills enhancement programs). Fourth, WAPCo will coordinate local government agencies in the critical areas of security and protection of facilities and segments of the pipeline, as initiated by the Governor of Lagos State.

### **Environmental Safeguards**

20. All the corrective actions proposed under the MAP have been **completed**. The following paragraphs present an account of the achievements over the past six months.

21. Workplace Safety. WAPCo's commitment to workplace safety remains **consistent and effective** at all locations (Badagry, Cotonou, Lome, Tema and Takoradi). All sites are clean and orderly, safety briefings are held at the beginning of each site visit, and compliance with rules on personal protection equipment (PPE) use appears universal. The company reports 2,103,462 man-hours worked through June 2009 without a lost-time accident.

22. Community Safety. All communities around the WAGP project in Nigeria, Benin, Togo, and Ghana have confirmed that they **received emergency response training** from WAPCo. The extent of this training varied from one location to another, but, in general, the awareness sessions reached a significant number of community leaders and local officials. Ideally, they would have passed along the information they received to the communities at large, but this has not occurred. WAPCo is planning follow-up rounds of training to reach a larger segment of the population. There is a suggestion that the

awareness-raising be extended to children in local schools, and the head teacher in one of the Community Development Program (CDP) schools in Benin, offered to have pipeline safety taught in science classes if WAPCo would supply written material that the teachers could use. VRA environmental and safety staff have joined WAPCo in all safety training administered in communities around Takoradi, and VRA includes gas safety training in weekly safety training workshops at the plant. VRA has also provided emergency response training to staff in the school and club on its plant site and has scheduled training for its hospital staff.

**23. Offshore Pipeline Security.** The pipeline is marked on the pertinent British Admiralty and French SHOM<sup>3</sup> navigational charts. WAPCo and the WAGP Authority (WAGPA) have reached agreement with port authorities and navies in the four countries on establishment and enforcement of a pipeline protection zone (PPZ) with boundaries one nautical mile on either side of the pipeline. WAGPA is amending the pipeline regulations to reflect the PPZ. WAPCo is about to install the last of 22 buoys that mark the location of the main line and laterals in the vicinity of ports and other critical locations, including the seaward ends of the berms at Takoradi and Tema. The Port Captain and the Navy detachment at Cotonou have been made aware of pipeline security issues and the PPZ and buoys are marked on the radar screen used to control ship movements at the port. The Port authorities and the Navy have outreach programs to make ship captains, shipping agents, and fishermen's associations aware of the pipeline's location and the precautions that are necessary when operating in its vicinity. WAPCo reports that the PPZ is also marked on the radar screens at Lomé and Tema. WAPCo is engaged jointly with the Ghanaian Navy in an awareness campaign to protect the pipeline from the illegal and extremely hazardous practice of fishing using explosives that is known to occur along the Ghanaian coast.

**24. Environmental Monitoring.** WAPCo has engaged Environmental Resources Managers Limited (ERML), a highly-reputed Lagos-based consulting firm, to conduct routine monitoring of ESMP implementation and environmental quality during the remainder of the construction period. The arrangement is working very well, and ERML has submitted the reports of its first round of monitoring in Benin, Togo and Nigeria and is presently in the field in Ghana. The review of the draft report for Togo confirms it is of excellent quality and shows nearly complete compliance with relevant ESMP actions and no significant changes in environmental quality since 2004. In addition, ERML has been called on by WAGP to carry out specialized monitoring for sensitive activities, such as discharge of hydrotest water in LBCS, Nigeria and the repair of the break in the offshore pipeline at Lome. WAGP also engaged SGS for the monitoring of discharge hydrotest water in Takoradi R&M Station (which was carried out with no problems and witnessed by Ghana EPA). ERML will be on site to monitor water quality when the 8-inch gas lateral line is installed across the lagoon in Benin. WAGP has designed ERML's contract to build capacity in the four countries, by means of: (i) subcontracting a local expert from each country to serve as the ESMP coordinator, who will work with WAGP's HSE officers and environmental specialists; (ii) providing hands-on training in sample

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<sup>3</sup> Naval Hydrographic and Oceanographic Service.

collection and use of field monitoring equipment to local technicians and the Health, Safety and Environment (HSE) officers; and (iii) acquiring laboratory equipment to be used by and left in the custody of the university laboratories that ERML has engaged in each country to perform lab analysis and, in the case of sound meters, with the environmental agencies. The report of the beach monitoring program, being prepared by a different consultant, is currently under review by WAPCo and revision by the consultant.

25. Implementation of Environmental and Social Management Plans (ESMPs). According to the recently-concluded Bank supervision mission, there are **no significant adverse impacts** along the Right-of-Way (ROW) in Nigeria and at any of the stations in the four countries. Beach erosion appears to have stopped at Takoradi as a result of the partial berm removal, and there are signs of accretion in the previously eroding area immediately down-current from the pipeline shore crossing. Waste management practices, including separation, recycling, and use of a manifest system to track waste disposal are exemplary at all facilities. WAPCo has strengthened its organizational capacity to promote and oversee implementation of mitigation measures set forth in the ESMPs for each country. In addition to the HSE Officers at LBCS and the R&M Stations, whose primary duties emphasize safety but also cover waste management, the WAGP HSE Advisor has two Environmental & Regulatory Compliance Specialists that report to him and coordinate environmental mitigation, monitoring and reporting activities. ERML has assisted these WAGP staff members in conducting ESIA/ESMP workshops for employees of DBN in Nigeria (January 2009) and Zakhem in Benin (February 2009). WAGP construction staff and regulatory agency personnel participated in the workshops. The HSE Advisor is following up to ensure that new staff and staff that may have been away on rotation during the workshops also receive this training.

26. Reporting. WAPCo has **strengthened** its reporting and provided copies of numerous special reports it has submitted to the environmental agencies in the four countries. The company considers its working relationships with all of the agencies to be excellent. WAGP's environmental experts hold quarterly meetings with the respective environmental agencies and provide updates on outstanding issues. The Ghana Environmental Protection agency (EPA) has, however, expressed concern that it has not received written monitoring reports, which it would prefer instead of quarterly meetings, and has not been sufficiently kept up to date on the beach monitoring programs. WAPCo is reviewing the ERML reports and beach monitoring report. They will share these reports with Ghana EPA once their internal review is complete and the Consultants have submitted the final report.

27. Environmental Management in the Transition from Construction to Operation. This is an area that is **particularly important** at major transition points such as from preparation to construction and, now, from construction to operations. Responsibilities transfer to new teams, and "institutional memory" can be lost, including established practice in ESMP implementation and mitigation measures, and adverse impacts may result. In this regard, a team overlap has been assured between WAGP's construction teams and WAPCo's operations staff, particularly evident at LBCS and Itoki, where the construction and operations superintendents and HSE officers are working together.

Operations staff have also had the opportunity to participate in the ESMP workshop at LBCS. WAGP has hired an HSE analyst who is compiling all the reports and other documents on environmental and regulatory matters in a central filing system, for efficient and effective handover to the operations staff members who will take over the HSE functions.

28. Way forward. The progress in ESMP implementation, environmental monitoring, collaboration with regulatory agencies, reporting and information management has been substantial since December 2008. There are no significant shortcomings requiring attention at present; however, Management has suggested that WAPCo devote its attention to the transition issues and in particular, consider the following: (a) filling of the vacancy of the Regulatory Compliance Manager; (b) engagement of counterparts for the two Environmental & Regulatory Compliance Specialists; (c) formulation and implementation of a practical and durable, long-term impact and compliance monitoring program; and (d) implementation training for any operations staff members that have not attended an ESMP workshop. WAPCo has concurred with these suggestions.

#### **Supervision (AFR Region and Project)**

29. Management in the Africa Region has continued to ensure strong oversight of the Project, and received and reviewed periodical progress reports. The Country Directors in Nigeria and Ghana, and Country Managers in Benin and Togo, have closely monitored progress on the Project. The Task team has been predominantly located in the field but has received advice and guidance from the Sector Manager, Sector Director and the Regional Vice President. Following is the progress over the period February-July 2009:

(a) Bank supervision missions. A full-fledged Bank supervision mission, comprising of professionals from the HQ and the field, took place during July 13-25, 2009. The mission reviewed physical progress, and compliance with the environmental and social safeguards by WAPCo. Particular attention was paid to the review of progress on the implementation of action agreed MAP. While the implementation of environmental actions is complete, there are some residual actions in complying with the social safeguards (see paragraph 18).

(b) Monthly field visits. The task team undertook monthly field visits, and undertook consultation with the PAPs up to February 2009 (at the time of submission of the first six-monthly Progress Report). In all, six monthly field visits have been undertaken starting from July 2008 and they have helped establish a strong relationship with the communities around the project area.

30. WAGP experience dissemination meeting. A Bank-wide seminar and meeting with Bank staff and Inspection Panel members was organized in Washington DC on June 16, 2009 to share WAGP experiences and lessons learned for Africa regional operations. The key speakers were the Managing Director and General Manager Corporate Affairs, WAPCo who made a detailed presentation and answered questions. A number of one-on-one meetings were also organized to disseminate the experience in handling the safeguard issues on the project.

31. Implementation of Management Action Plan. Table-2 (Page 5) provides a comprehensive account of actions taken during the last six months.

#### IV. Outstanding Issues and Way Forward

##### Gas Supply

32. Gas supply from Nigeria: Production of gas from Associated Gas (AG) and Non Associated Gas (NAG) fields in Niger Delta by SPDC and CNL is subject to a variety of uncertainties. The most significant issue is the supply of gas by the producers, and the security of gas transmission infrastructure which has been repeatedly vandalized in the recent past. It is evident that while the WAGP pipeline and associated facilities could be completed in the coming months, the Project Development Objectives (PDO) could be seriously affected if gas supplies from Niger Delta fields are either not available or are disrupted<sup>4</sup>. Since current gas supplies are less than potential demand in Nigeria, a system of "nomination" exists – producers indicate gas availability to the Nigerian Gas Company (NGC), which then decides how to deliver it to specific customers.

33. The domestic sector is also faced with gas processing and transmission infrastructure constraints. The existing infrastructure is old and requires rehabilitation and upgrading. Most of the gas transported from the fields to the market is through the ELPS, and little or no system redundancy is currently available. The fields in East and West Niger Delta are presently not connected. Conscious of these infrastructure issues, FGN announced a new Gas Policy 2008 under which following measures were announced: (a) phased gas price rationalization to attain \$1 per mmbtu by 2012; (b) development of a commercial framework for contracts; (c) solicitation of private investments in gas processing and transmission pipelines as per Gas Master Plan (GMP); (d) Domestic Supply Obligation (DSO) and establishment of a Gas Aggregator; and (e) enactment of a Petroleum Industry Bill (PIB) to provide the legal underpinnings of the development in the gas sector.

34. Expectation of gas supply in excess of foundation volume. The power utilities and IPPs in Benin, Togo and Ghana are expecting gas in excess of the foundation volume (133 mmcfd). No contracts exist between NGas (the purchaser of gas from SPDC and CNL) and such potential customers. It is very unlikely that Nigeria would be able to supply more than the foundation gas volume at least in the short-term; however, construction of the power plants continues in the three countries in the expectation of much greater gas exports from Nigeria. The Bank and WAPCo have repeatedly raised these concerns with the FGN and will continue to do so at the highest levels. Oil and gas discoveries in Ghana open up a future potential for additional gas supply from the other end (backflow from Takoradi to Tema and beyond) of the pipeline as well.

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<sup>4</sup> It is also recognized that security problems not only affect WAGP, but have much greater consequences for the power generation in Nigeria.

## **Social Impacts and Mitigation**

35. Development of a livelihood restoration strategy with an appropriate M&E system. WAPCo has primarily undertaken CDPs in Year 1, which provided physical infrastructure facilities to the communities. However, moving from this strategy to CDPs aimed at livelihood restoration in the coming years will be a challenge. It is also important to have a strong M&E system with active community participation. Since WAPCo may not possess adequate past experience, it is critical that the Bank continue intense supervision on this aspect of social impact mitigation, including provision of technical advice during missions, as necessary.

36. Sustainability of completed CDPs. It has been observed that there has been inadequate interface between WAPCo and the local government in ensuring the sustainability of completed CDPs. Hence, hospital blocks have not been used because either the staff or the medicines have not been provided, or schools have not been used because the teachers are not available. It is important that high-level intervention is made by WAPCo to ensure that support of the local governments is forthcoming.

37. Additional compensation in Benin. While this is not envisaged to be a major issue, the additional compensation for land (where the land-take is more than 50% of the total holding) in Benin needs to be expeditiously completed. WAPCo is cognizant of this issue, and is taking the necessary steps to resolve it.

## **Environmental and Safety Impacts and Mitigation**

38. Environmental audit and regulation. Power plants in Ghana, Benin and Togo are being constructed on the assumption that fuel supplies (gas) would soon be available. This is a positive development and is being induced by the implementation of WAGP project. However, because the 80 MW power plant in Cotonou, 100 MW IPP plant in Lome, and a number of IPPs in Tema are not considered associated projects with WAGP, their environmental impacts will be managed under national environmental regulation in each of the three countries.

39. Enforcement of no-anchor zone in Benin, Togo and Ghana. The WAGP pipeline has suffered damage in the past on account of unauthorized anchoring by a ship near Cotonou. While the Port authorities and Navy in the three countries are being engaged, they lack resources for enforcement of the no-anchor zone. WAPCo is providing some support to the authorities in the short-term; however, WAPCo recognizes the need for long-term institutional strengthening and budget support to avoid any potential mishap to the pipeline system. Management is following up with WAPCo and the Governments.

40. AG and NAG gas volume data. The data on associated and non-associated gas in Nigeria (producer-wise) is available with the Department of Petroleum Resources (DPR), which can provide useful indications on the reduction of gas flaring. Intervention is needed at the highest levels to ensure that such data is made available to the Bank on a continuing basis in the future.



### **Other issues**

41. Payment by TAPCO. While all share-holders have paid their due amounts, TAPCO is yet to pay about \$42 million as its contribution to WAPCo for cost over-runs.

42. Payments by the Governments to WAGP Authority. Except for Nigeria which paid its dues in the Year 2008 only, none of the four countries have paid their contribution to WAGPA which they themselves established for the regulation of gas exports. This has caused concern and doubt about the commitment of the governments to WAGP. The July 2009 supervision mission raised the issue with all four Governments, all of which promised to review the issue.

### **Conclusion**

43. As indicated above, the Project has made significant progress and many of the activities in the Management Action Plan are completed. As the issues involved are complex and several areas of implementation, including the supply of gas, continue to be challenging, Management recognizes that maintaining strong supervision, close monitoring, and high level dialogue are critical. Management proposes reporting back to the Executive Directors in a year's time on progress achieved to date.